

## CLAIMS:

1. A network element of an analog, cellular network, notably a mobile radio set or a base station, including receiving means for receiving a wide-band data sequence that is composed of a starting synchronization (DOT1), a word synchronization (WS), a data word (REP1) and a fixed number of repeats of a further synchronization (DOT), a word synchronization (WS) and the data word (REP2-REP11), as well as evaluation means for recognizing that a transmission of a data sequence takes place when a starting synchronization (DOT1) has been recognized or alternatively one of the further synchronizations (DOT), succeeded by a correct word synchronization (WS), has been recognized, and for evaluating data words (REP1-REP11) received each time subsequent to a recognized starting synchronization (DOT1) that is succeeded by a word synchronization (WS), or received subsequent to a recognized further synchronization (DOT) that is succeeded by a correct word synchronization (WS).
2. A network element as claimed in claim 1, characterized in that the evaluation means are arranged to use a received data sequence as a basis for the selection of a data word when the data sequence yields at least a predetermined number of correctly received repeats of the data word (REP1-REP11).
3. A network element as claimed in one of the preceding claims, characterized in that the evaluation means are arranged to select for further processing that repeat from the received repeats of a data word (REP1-REP11) in a data sequence that occurs most frequently.
4. A network element as claimed in one of the preceding claims, characterized in that the evaluation means include a memory for storing a correct starting synchronization (DOT1) and a data buffer which has a capacity at least equal to the starting synchronization for the

bit-wise storage and shifting through of the received data, as well as comparison means for the continuous bit-wise comparison of the stored memory contents with the data buffer contents and for determining the number (dd(rx)) of deviating bits, the evaluation means being arranged to decide that a starting synchronization (DOT1) has commenced when the  
5 number (dd(rx)) of deviating bits is less than a predetermined number (dd<sub>min</sub>), and that a starting synchronization (DOT1) has been correctly received when the number (dd(rx)) of deviating bits reaches zero.

5. A network element as claimed in one of the preceding claims,

10 characterized in that

the evaluation means are arranged to assume the occurrence of a change over to the second data sequence in the case of disturbed starting synchronizations (DOT1) of two directly successive data sequences after expiration of the temporal length of a data sequence as from the beginning of a first recognized synchronization (DOT) that is succeeded by a correct  
15 word synchronization (WS).

6. A method for a network element of an analog, cellular network, notably a mobile radio set or a base station, for receiving a data sequence, that is composed of a starting synchronization (DOT1), a word synchronization (WS), a data word (REP1) and a  
20 fixed number of repeats of a further synchronization (DOT), a word synchronization (WS) and the data word (REP2-REP11), which method includes the following steps:

- a) continuously monitoring the arrival of wide-band data streams, if any, in order to recognize whether a data transmission intended for the network element takes place,
- b) determining whether a starting synchronization (DOT1) can be recognized in  
25 received data streams or whether a further synchronization (DOT) that is succeeded by a correct word synchronization (WS) can be recognized, and
- c) evaluating the data words (REP1-REP11) subsequent to a recognized starting synchronization (DOT1) or subsequent to a combination of a further recognized synchronization (DOT) and a correctly received word synchronization (WS).